Texas Osteopathic Physicians Journal

VOLUME XXI FORT WORTH, TEXAS, AUGUST, 1965 NUMBER 4

In This Issue—

Texas Osteopathic Physicians' Journal

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EDITORIAL PAGE

GUEST EDITORIALIST

By GEORGE NORTHUP, D.O.,
AOA Editor

The Pill Is The Same

Recent articles and editorials make practicing physicians more cognizant than ever before of the toxic effects of some drugs. The side effects of drugs is not a new subject. Physicians have contended with this for years.

It would seem, however, that the real lesson to be learned is not only that drugs have toxic effects but rather that *some* patients have toxic reactions to certain drugs.

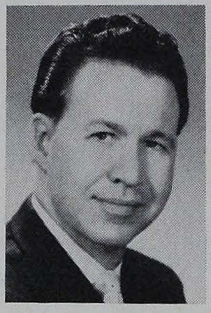
Pharmacological side effects are usually less frequent and less obvious than the therapeutic effects. But a pill or injection that saves the life of one person may take the life of another. The pill is the same, but the patients are different!

One of the traps of clinical medicine is the tendency to treat disease according to therapeutic recipe. Such a procedure may be applicable for baking a cake but is scarcely recommended for the treatment of variable patients.

In the past two decades therapy has become far more specific. But as its specificity increases, so must an understanding of the *individuality* of each patient and his responses both to disease and treatment increase. As it is incumbent upon the physician to know the therapeutic indications for each agent he uses, it is necessary that he be equally familiar with the contraindications and the reported and observed side effects. Too often a therapeutic accident could have been prevented by more careful questioning of the patient.

Symptoms and signs are important. Powerful and applicable therapeutic aids are a blessing. But the patient must continue to occupy the center of medicine's stage.

Texans Selected for Leadership Positions Within American Osteopathic Association



JOHN H. BURNETT, D.O.

GEORGE J. LUIBEL, D.O.

Texas contributions of leadership abilities at the A.O.A. level continue high as the result of elections held during the recent House of Delegates meetings in Chicago, which resulted in the election of Dr. George J. Luibel to the Board of Trustees and of Dr. John H. Burnett as Third Vice President of the national association.

Dr. Luibel was elected to complete the unexpired two-years of the trusteeship recently resigned by Dr. Loren Rohr. Dr. Luibel has served as second vice president and as first vice president of A.O.A. during recent years. He is a past president of TAOP&S.

Dr. Burnett, whose selection as third vice president also places him on the AOA Board of Trustees, is currently the president of TAOP&S and also serves as a trustee of the American College of General Practitioners in Osteopathic Medicine and Surgery.

Dr. Ballard Appointed to Board of Medical Examiners

L. G. BALLARD, D.O.

Dr. L. G. Ballard of Granbury has been appointed by Governor Connally to the Texas State Board of Medical Examiners. Dr. Ballard succeeds Dr. R. H. Peterson of Wichita Falls.

Dr. Ballard served as President of TAOP&S in 1962-63 and is a former mayor of Granbury.

Dr. Ballard founded Granbury General Hospital in 1945 and is a staff member of Fort Worth Osteopathic Hospital. He is a graduate of Duke University and Kansas City College of Osteopathy and Surgery.

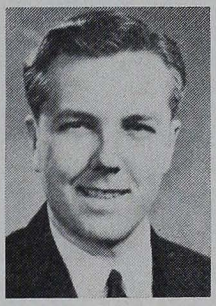
Drs. L. H. Denman of Lufkin, Howard O. Smith of Marlin and Clarence S. Kemp of Bryan were re-appointed to the Board.

Radiological Society Meeting

Dr. Chas. D. Ogilvie, Dallas, Texas, will be featured speaker at the annual T.O.R.S. meeting to be held in Wimberley, Texas, August 27th to 29th. His topic will deal with current management of the more common malignancies. Dr. Ogilvie is past president of the American College of Radiology and was honored by that College and the College of Surgeons by being selected as the Trenery Lecturer in 1964. His contributions to Radiology both nationally and in the state are well recognized.

The T.O.R.S. meeting is being held in Wimberley for the second consecutive year. All Osteopathic physicians are invited to attend. Registration fee has been set at $10.00.

CHARLES D. OGILVIE, D.O.



ROBERT NELSON, D.O.

Texas Osteopathic Radiological Society Meeting

Corral of the Longhorn, Wimberley, Texas

August 27-29, 1965

SCHEDULE

Friday, August 27

Cocktail Party
Courtesy Ansco Corp.

Saturday, August 28

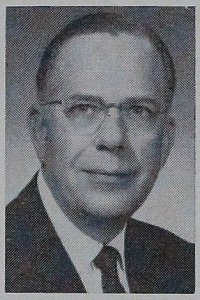
10:00 A.M.—Dr. Edward J. Yurkon
"Basic Principles of Nuclear Medicine"
11:00 A.M.—Dr. Robert Nelson
"Special Radiographic Techniques and Procedures"
Wives and children to spend day in caves and Aquarena, or swimming, etc.
2:00 P.M.—Dr. Chas. Ogilvie
"Current Therapy in the More Common Malignancies"
3:00 P.M.—Dr. Peggy Yurkon
"Santiscanning and its Role in Modern Medicine"
7:00 P.M.—Cocktail Party and dinner for adults—Courtesy Gilbert X-ray Co.—Children to go on wiener roast and marshmallow toast.
9:00 P.M. to 1:00 A.M.—Poolside music and dancing.

Sunday, August 29

9:00 A.M.—Dr. Robert Nelson
"Special Radiographic Techniques and Procedures" Cont'd
Noon —Luncheon for all—Courtesy T.O.R.S.
2:00 P.M.—Film Conference

Reports of Delegates to A.O.A.

Report of AD HOC Committees



CLIFFORD E. DICKEY, D.O.

Osteopathic Progress Fund Committee

Contributions to the OPF in 1964-65 were the second highest on record, and amounted to over $900,000.00. It now appears that by next year all but two states with more than 100 members will be on a permanent "support through dues" program. Of the total amount received last year, the Osteopathic profession in Texas accounted for $76,-860.00. Only by the help of the profession will the Osteopathic Colleges survive.

Committee on Dual, Joint and/or Mixed-Staffed Hospitals

During the past year this special committee has spent much time and study concerning these hospitals with varying staff organizational set-ups as they relate to the Osteopathic profession.

Definitions:

Dual-Staffed Hospital — A hospital with two separate and distinct organized staffs—one Osteopathic and one Allopathic—under the same administration.

Joint-Staffed Hospital — A hospital with a professional staff composed of both Osteopathic and Allopathic physicians, each of which have the same privileges, opportunities and responsibilities.

Mixed-Staffed Hospital—A hospital with a professional staff composed of both Osteopathic and Allopathic physicians, but the members of either profession are not accorded the same privileges, opportunities and responsibilities.

The work assigned to this Committee is continuing. The following resolution, with the approval of the Board of Trustees, was presented to and passed by the House of Delegates.

RESOLVED, that consideration be given to a change in policy whereby the Committee on Hospitals may inspect joint hospitals for registration.

Liaison Committee to Specialty Colleges

The purpose of this committee of the House of Delegates was to work with the Specialty Colleges in 1964-65 to aid in implementing the directive of the House of Delegates of July 1961 and reaffirmed in July, 1964, that all Specialty Colleges and allied organizations of the AOA should hold their annual meetings at the same time and place as the AOA Annual Clinical Assembly. The Committee's report indicates that the AOCR and the AOHA would give serious consideration to this directive but the other involved groups did not so indicate. As a result, no action was taken and the Committee simply made an interim informational report. *Explanatory Note*: This matter was later resolved during the AOA House of Delegates meeting as shown in the last item in this report.

House of Delegates AD HOC Committee

Subject: Combined Annual Clinical Assembly.

Two resolutions, one from Ohio and one from Missouri, concerning this mat-

ter were introduced in the House of Delegates. These were referred to the House Ad Hoc Committee. After full discussion this Committee presented a resolution to the House of Delegates which recommended that the previous directive of the House of Delegates be recinded. By a close vote this resolution passed. As it now stands, no Specialty College is required to hold its annual meeting at the same time and place and with the AOA Clinical Assembly.

Report on Board of Trustees Meeting

GEORGE J. LUIBEL, D.O.

The Board of Trustees of the American Osteopathic Association was called to order at 10:00 A.M. July 14 in the Walton Room of the Drake Hotel by President Campbell Ward, D.O. A short invocation was given by Dr. Earl Lyon and then President Ward gave a commentary on his year of leadership highlighting the various events that have taken place. The Board was advised of the interim actions of the AOA Executive Committee which is the active arm of the Association between Board meetings.

The first day of the Board Meeting was mainly spent in receiving the annual reports from the central office staff. Dr. True Eveleth, the Executive Director, gave a general review of AOA affairs from the point of views of his office. He introduced G. Earl Moore, D.O. the new Director of the Office of Hospital Affairs and Carl W. Cahoon, the new Administrative Director for the National Board of Examiners. The Board later approved the Executive Director's recommendations to invite the divisional societies secretaries to an AOA sponsored meeting and to conduct a similar session for the specialty college secretaries. It was also agreeable to have student representatives from the five Colleges again invited to the January Board Meeting. All of these efforts are for the purpose of improving the line of communication to all segments of the profession.

Mr. Kenneth L. Ettenson presented a detailed review of the financial position of the Association which continues to be strong. The proposed budget for 1965-1966 will for the first time in AOA history, exceed $2,000,000. Mr. Ettenson was followed by Mr. Walter Suberg who is the AOA Business Manager. Mr. Suberg's report highlighted one point in particular which I would like to call to the attention of the membership. Some companies like Ciba and Rorer feel that they are reaching the profession adequately through allopathic periodicals. Consequently they are pulling their advertising out of AOA publications. When you reply to a survey, if you don't quote osteopathic publications, you will only aid and abet this practice. All of us need to be alerted to this situation.

Dr. Northup, the AOA Editor and Miss Collins, the General Counsel, gave comprehensive summaries of their year's activities. While Miss Collins was able to report the settlement of some perplexing legal problems, she had to convey the unfortunate tidings of the loss of the California College Case. Apparently this was due to the political pressures which forced the original plaintiffs to withdraw and because of complex legal technicalities we were never able to have our day in court.

Justice, such as it is in California, sometimes travels a peculiar pathway.

Mr. Lawrence Mills, Director of Education, reported an enrollment of 1661 students in our colleges during the past year which represented a gain of 67 enrollees. Included in his report was an account of his visit to Texas Colleges and the dinner-meeting at the Inn of the Six Flags with premedical students and educators. All of the colleges were approved for the coming year.

Dr. H. Dale Pearson, Chairman of the Advisory Board for Osteopathic Specialists, gave his usual comprehensive report concerning various examining and certifying mechanisms. Recommendations were made for some procedural changes and then Dr. Pearson presented a list of candidates who had met the qualifications for certification in their particular specialty. The Board of Trustees, as the certifying agency of the AOA conferred the actual certification on the candidates. It was agreed to do this semi-annually in the future to speed up the process for those in training.

The Board on the second day split into various reference groups, each of which considered a different segment of the business at hand and prepared recommendations for action by the Board as a whole. The entire Board then reviewed these procedures and either accepted or rejected the advice as given. For instance, one committee recommended that the "popular version" of the Basic Philosophy of Osteopathic Medicine was not suitable for lay reading and should be re-written by a science writer. The report of the Committee on Hospitals was accepted pretty much as prepared and the entire Board approved a variety of training programs and hospital registrations throughout the country. The Board agreed to permit a statement on the profession's position concerning D.O.s on the staff of medical hospitals to be released to the Catholic Hospital Association for publication in a forthcoming issue of their periodical.

We also listened to the ladies associated with the profession, Mrs. William Baldwin, President of the Auxiliary to the AOA and Mrs. Henry Hillard, who was the Chairman of the Christmas Seal Campaign this year and the Board was indeed pleased to hear how much they had accomplished. They have projected a goal of $150,000 for this year's seal campaign and if the profession cooperates, they will easily attain it.

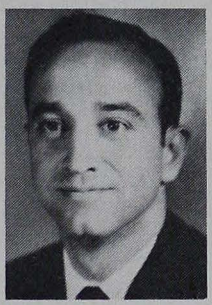
The new Board of Trustees which met on Wednesday, July 21st. after the House adjourned, still contains two members from Texas. Dr. John Burnett is the new third Vice-president and I was elected a Trustee to fill the unexpired term of Dr. Loren Rohr.

Included in the appointments for the forth-coming year as announced by President Larson, is the re-appointment of Dr. Elmer Baum to the Bureau of Insurance and the Council on Federal Health Programs, Dr. Thomas R. Turner to the Committee on Disaster Medical Care, and I was re-appointed to the

Committee on Distinguished Service Certificates and the Committee on A. T. Still Memorial Lecture. In addition, I was appointed to a new Board House Committee to assist in planning new colleges. Dr. Roland Young of Dallas is a House member of the same committee.

The next meeting of the Board will be in Philadelphia September 16th. immediately preceding the Annual Clinical Meeting of the AOA.

Annual Report American Osteopathic Association House of Delegates



SAMUEL B. GANZ, D.O.

The financial position of the American Osteopathic Association continues very strong. As of May 31, 1965 there was $169,738.87 in surplus cash and a reserve of $277,955.64 in stocks and bonds, for a total of $447,694.51. This is approximately the same figure as recorded last year. The combined net worth of the American Osteopathic Association as of the above date is $1,412,467. This represents an increase of $21,463.13 over the past year.

The income for advertising in the various osteopathic publications increased $75,000 during the 1964/65 fiscal year. One-third of this increase is as a result of the "Piggyback" innovation which was introduced last January by Mr. Suberg, business manager of the American Osteopathic Association. This innovation allows the pharmaceutical companies to forward sample drugs with either "The Journal" or "The D.O." at a nominal cost. The income from this program for the 1965 calendar year will be $139,500 and the maximum potential for one year would be $210,000. The 1966 calendar year with the exception of the May D.O. is already sold out. Another interesting facet of this program is that it yields a net profit of 80%.

On the other side of the advertising coin it is necessary to alert our membership to the practice of companies like *Ciba Pharmaceutical Company and William H. Rorer Inc.* who believe that their advertising in allopathic publications going to Osteopathic Physicians adequately satisfies their needs for reaching D.O.'s. These two companies *have discontinued all advertising in our osteopathic publications.* If this practice is adopted by other drug companies it could seriously threaten the financial stability of the American Osteopathic Association since the gross annual income from advertising is in excess of $950,000. It appears obvious to your reporter that a dues increase would be necessary if this trend continues.

The Christmas Seal contribution income totaled over $100,000 and after expenses were deducted net proceeds in excess of $80,000 were divided equally between the Foundation Student Loan and the American Osteopathic Association Research Funds. It is interesting to note that during the life of the Student Loan Funds, 1,300 students have received loans in a total principal amount of $1,059,803.00. There will be $178,000 available for student loans during the current fiscal year. The Christmas Seal goal for 1965 is $150,000 and it is essential that this goal be reached.

Summary of 1965 House of Delegates Meeting of the A.O.A.

A. ROLAND YOUNG, D.O.

The annual meeting of the Board of Trustees, House of Delegates and meetings of participating organizations was held July 10-21, 1965 at the Drake Hotel in Chicago, Illinois.

The overall tone of the meeting impressed me as an organized executive department, heavily burdened board of trustees which paved the way for smooth-sailing as far as the house of delegates was concerned. During the past twelve months the Association has experienced a full share of events and activities. Some problems have been satisfactorily resolved, some haven't and some new ones on the horizon.

There has been an increase in membership in the Association, a larger student body in our colleges and a greater freshman class matriculation in the fall. There are again more interns and residents, as well as patient beds, in osteopathic hospitals than a year ago. In fact, there are more osteopathic hospitals. Certified specialists number 106 more than last year.

The Christmas Seal Program hit an all-time high by exceeding its goal of $100,000.00.

There has been a personnel increase in the Central Office namely G. Erle Moore, D. O. from Eads, Colorado as Director of the Office of Hospital Affairs and Mr. Carl W. Cahoon as Administrative Director of the National Board of Examiners for Osteopathic Physicians and Surgeons.

More attention was focused upon the areawide planning councils and the nation wide trend to hold that a "hospital is a hospital" and to ignore any distinction between osteopathic and allopathic hospitals. This could develop a major problem in future years if our policy of remaining separate and distinct is challenged by the incompatibility of two contentions. We must make known the distinctiveness of osteopathic care if we are to meet these challenges.

A closer relationship of A. O. A. activities and our students in osteopathic colleges has been brought about by the attendance of student representatives at the midyear meeting of the Board of Trustees and it is planned to continue this program.

One can't help being concerned over the criticism leveled at the A. O. A. by members of the profession on organizational matters. Criticisms on the judgment of organizational leadership seems to be the "blue-plate" special on the menu these days; but when we consider the unrest throughout the nation and the world we can better understand our own problems.

The definitive reports of the departments of our association are being covered by other members of our Texas delegation and need not be augmented by me.

The Texas Delegation functioned as an effective group from a professional as well as political level. We were fortunate in having George J. Luibel, D. O. elected to a two year term on the Board of Trustees and John H. Burnett, D. O. elected 3rd Vice President of the A. O. A.

Reports From Bureau of: Research, Organizational Affairs, Conventions

JACK P. LEACH, D.O.

BUREAU OF RESEARCH.

The Bureau of Research held its annual meeting in Chicago on March 11 and 12, 1965. The grant request totaled $164,567.54. There were lower total of requests but there was a higher total estimate of cash available for grants which totaled $121,062.60. There is to be a revision of the Hand-book and Administrative Guide. A reference committee was appointed to make preliminary recommendations and changes that might be sought in the Administrative Guide and Bureau Hand-book. Efforts are being made to obtain a full time research director. Several candidates have been interviewed but none chosen at this time. The ninth annual Research Conference was sponsored by the Bureau on March 13 and 14, 1965 at the Lake Tower Motel in Chicago. Twenty-two papers were presented. Over seventy persons attended representing all the Colleges.

The Committee on Ethics stated that the Committee had reviewed the Code of Ethics and referred back to it by the House of Delegates in 1964, made revisions, and is resubmitting the Code. The Committee is still concerned that some Osteopathic Physicians still fail to designate their school of practice on professional stationery as a part of its educational program within the profession. The Committee has asked the AOA to insert mimeographed reminders to designate school of practice in correspondence with members whose professional stationery is not correct. It was resolved that the proposed revision of the Code of Ethics of The American Osteopathic Association as published in the Journal of the AOA, May, 1965, be adopted.

The Committee on Membership. The Committee held four meetings during the 1964-1965 fiscal year, the final meeting being in July prior to the Board of Trustees Meeting. During the year 1964-65 thirty-seven life memberships were awarded and three honorary life memberships. There are twenty-seven members with twenty-five years of consecutive membership who have reached seventy years of age making a total of sixty-three life memberships being recommended by the Committee on Membership for approval of the 1965-66 fiscal year. As of June 1, 1965 the AOA membership totaled 9,418 which is a gain of 172 members over the last year. The non-member count remains about the same with 2,926 this year as compared to 2,930 last year. The student membership count is 1,141 which is a gain of 429 over the last year.

The Committee on Veteran Affairs reports that the Committee is doing an excellent public relations work in their local, district and state veteran's organizations. They cover a wide range of activity including holding important offices.

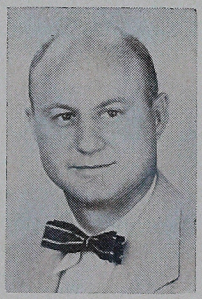
Dr. True B. Eveleth gave his report from the **Bureau of Conventions.** The 1965 AOA annual Convention will be the 70th annual convention of the American Osteopathic Association and will be held in Philadelphia, Pennsyl-

vania September 20 to 23. Dr. Swope is the Program Chairman and has developed what promises to be an excellent professional program. Closed circuit color television will materially aid several of the oral presentations. This service is provided by Smith Kline & French Laboratories at considerable expense to that organization. The registration fee will be only $25.00 which will include tickets to the AOA Cordiality Hour, the AOA President's Banquet and Entertainment and a ticket for women guests to attend the Ladies' Tea and Entertainment. The future convention sites approved by the Board of Trustees are: 1966 New Orleans, Louisiana, November 14 to 17; 1967 San Francisco, California, October 30 to November 2; 1968, Miami Beach, Florida, October 14 to 17; 1969, New York City, New York, October 6 to 9; 1970, New Orleans, Louisiana, October 5 to 8.

The Ohio Resolution was passed by the House of Delegates which stated that the House of Delegates of the American Osteopathic Association should not instruct the various divisional societies as to where and when to hold their annual meetings and therefore likewise should not require affiliated organizations of the American Osteopathic Association to hold their annual meeting at a specific time and place.

Dr. Felix D. Swope, Chairman of the Program Committee reported that the theme for the seventieth annual Osteopathic Association Convention and Scientific Seminar is MEDICAL ACHIEVEMENT FOR FAMILY HEALTH. The keynote address will be delivered by Dr. Abraham M. Lilienfeld, School of Hygiene and Public Health, Department of Chronic Diseases, Johns Hopkins University, whose subject will be The Application of New Medical Knowledge to the Community.

Report: Bureaus of Public Education on Health and Insurance; Council on Federal Health Program



ELMER C. BAUM, D.O.

I have been assigned to report on three committees as follows:

(1). BUREAU OF PUBLIC EDUCATION ON HEALTH

The Bureau in its report stated that they had concentrated their efforts this past year on the limited states. Briefly here are a few comments on what has taken place in these states the past year.

California — House Resolution No. 613 to appoint an interim committee to study the state licensing agencies and to report to the 1967 legislature was heard and referred for interim study. The scope of the study will probably be known by early August of this year.

Georgia—The Attorney General of Georgia and the Assistant Attorney General who had been working on the problem of osteopathic licensure are no longer in those positions. Accordingly, the Georgia Association, which for a time seemed so close to a solution to its scope of practice problem, now faces

the job of familiarizing the new Attorney General and the new Assistant assigned to regulatory agencies with osteopathic medicine.

North Carolina — The North Carolina legislature passed a study commission bill in its closing hours. The commission, to consist of one D. O., two laymen and two M. D.'s to be appointed by the Governor, is to report to the legislature in 1967.

South Carolina—The South Carolina legislature passed a bill creating a committee to study osteopathic licensure and report to the legislature in 1966. The committee will consist of three members of the House, three members of the Senate and three members appointed by the Governor, two of whom are to be M. D.'s and one of whom is to be a D. O.

Nebraska—The bill requiring reinspection of osteopathic colleges which were not recommended by the Board of Examiners in Medicine and Surgery has become law. Reinspection may take place a year after the inspection resulting in a recommendation of no approval.

In further discussing why it is difficult for these states to get Practice Acts:

First, and most important, is continuing strong medical opposition. Despite merger invitations in states where the osteopathic profession and its hospitals are flourishing, medical representatives in limited osteopathic states resist any improvement in the practice situation of D. O.'s. Medical opposition is becoming sophisticated. Medical spokesmen aren't much better informed concerning the osteopathic profession than they have been in the past but news of reports supposedly adverse to the osteopathic profession are traveling rapidly to limited states where D. O.'s are actively striving to obtain unlimited practice rights.

Few D. O.'s practice in limited states and in many of these states, the D. O.'s are of advanced age. Discouragement over past failure to obtain unlimited rights slows efforts. In some limited states there are D. O.'s who are perfectly satisfied with their practices and resist any efforts to "rock the boat" on licensure.

The Bureau does not and cannot meet these problems by going into a state to "get an act." The Bureau advises and encourages. The drive for a new practice act must come from D. O.'s within a limited state.

(2). COUNCIL ON FEDERAL HEALTH PROGRAM

Naturally the main area of concern of this committee has been the Medicare Bill, H. R. 6675. The profession should feel good to know that we are included in every aspect of this bill with recognition to our own accrediting agencies. In brief summary:

The overall purpose of H. R. 6675 is as follows:

First, to provide a coordinated ap-

proach for health insurance and medical care for the aged under the Social Security Act by establishing three new health care programs: (1) a compulsory hospital-based program for the aged; (2) a voluntary supplementary plan to provide physicians' and other supplementary health services for the aged; and (3) an expanded medical assistance program for the needy and medically needy aged, blind, disabled, and families with dependent children.

Second, to expand the services for maternal and child health, crippled children, child welfare, and the mentally retarded, and to establish a five-year program of "special project grants" to provide comprehensive health care and services for needy children (including those who are emotionally disturbed) of school age or preschool age.

Third, to revise and improve the benefit and coverage provisions and the financing structure of the Federal old-age, survivors, and disability insurance system.

Physicians Role

The committee's bill provides that the physician is to be the key figure in determining utilization of health services—and provides that it is a physician who is to decide upon admission to a hospital, order tests, drugs and treatments, and determine the length of stay. For this reason the bill would require that payment could be made only if a physician certifies to the medical necessity of the serivces furnished.

In the case of home health services, a physician would have to certify that the services were required because the individual was confined to his home. He would also have to certify that the individual needed (except for receipt of special treatment at a medical institution) skilled nursing care on an intermittent basis or physical or speech therapy.

Another measure of importance, The Health Professions Educational Assistance Amendments of 1965, H. R. 3141, is of transcendent importance to our schools, principally because it extends the construction assistance provisions of the Health Professions Educational Assistance Act of September 24, 1963, Public Law 88-129 (H. R. 12) and adds limited financial assistance for operational expenses of the schools. The financial condition of medical, dental and osteopathic schools was spelled out in hearings before the House Commerce Committee.

(3). BUREAU OF INSURANCE

Professional Liability Insurance Program

The Bureau's hopes for a drop in the reported claims against our members

were not realized for the second year in a row. Individual claims in 1964 totaled 252 against 249 in 1963. Hospital claims increased to 93 in 1964 against 80 in 1963.

In and of themselves, these figures are not too depressing, but 1964 saw a total of 278 cases closed at an average cost of $3,846 per case. This is an increase of 7.9% over the average cost of the 1963 closed cases, and in conjunction with the further increase in reported claims indicates a trend that is extremely disturbing to the members of the Bureau.

Though these results did not become completely apparent until the end of the year, it was obvious by midyear that adjustments would have to be made in our premiums for 1965. The insuror felt a major increase ought to be put into effect to bring the premium level up to the required figure, but the administrator of our program negotiated a considerably lower figure since the midyear results could not be termed conclusive.

Single judgments against our insureds in 1964 included amounts of $40,000 in Michigan; $17,500 in Florida; $9,000 in Georgia; $100,000 in Ohio; and $36,000 in Oregon. Here again we notice an increase in the number and the amount awarded against our doctors over the preceding year.

The past year has also been marked by the withdrawal from this type of insurance companies that covered several of our doctors in three or four states. It can only be assumed that they have experienced the same problems as our program.

A recent article in *Medical World News* lists three items which are extremely pertinent to this report. They are:

1. A prognosis on malpractice from nearly 100 medical-legal experts, most of whom regularly represent patients in suits against physicians. Many also represent doctors. The consensus points to higher damage awards, increased malpractice insurance premiums, and unfavorable public reaction in instances where the suits received publicity.

2. The report mentions recent awards in Pennsylvania and California, each of which exceeded $700,000.

3. A statement by Dr. Thomas D'Angelo of the New York State Malpractice Defense Board that 50% of the suits in his State have merit. The majority of these claims are based on preventable clinical errors and he agrees with the belief held by most of the attorneys surveyed, namely, that good medicine, combined with good patient relations, can substantially cut the threats of such suits.

Life Insurance Program

As the Bureau reported last year, this program had shown a net loss to the company of over $100,000 between the years of 1959 and 1964. Accordingly, the company requested a 15% increase in the premiums and this was put into

effect in January, 1965. The amount requested does not include any margin of profit as the company was hopeful of an improvement in the mortality.

The total premium collected in 1964 increased slightly to $192,522. We had only 12 deaths reported during 1964, of which 5 resulted from heart conditions. There was 1 death in 30 age group, 1 in the 40 age group, 7 in the 50's and 3 in the 60's. For the present, this shows a distinct improvement in our loss ratio.

During this year, one addition was made to our program, which the Bureau believes will strengthen it materially. A program for students was initiated at extremely favorable premium rates and this should afford two benefits:

1. Each student at osteopathic colleges will now have the opportunity to purchase $10,000 of Life Insurance at these low rates.

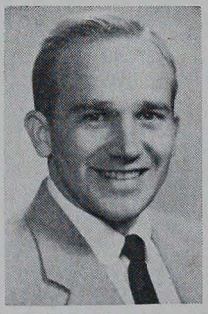
2. It is expected that they will continue this insurance when they go into practice and this will strengthen our program by bringing in the younger men.

Group Accident and Sickness Program

Both claims and claims payments increased materially under this program during the past year. Our insured doctors reported 199 claims, an increase of 13.1% over the figure of 176 for 1963 and 46.3% higher than in 1962. As a result, we have had two years of bad experience in a row. Premiums totaled $209,371 and claims $194,670 resulting in a major loss to the insuror.

We have only been able to maintain the present premium structure because of the good experience we had in 1962 and prior years. Unless there is a considerable drop in the number of claims this year, we will not be able to maintain our present premium structure.

Report: Bureau of Professional Education



M. GLENN KUMM, D.O.

The continuing high quality of professional education from undergraduate guidance and selection through the colleges into the hospitals and then to post graduate education will be maintained through these dedicated men with inspiring ideals; such that are found not only on national association level, but in our colleges and Delegates to the House of the A.O.A. New thoughts and ideas of medical education are taking shape with general ideas of improvement of the health and welfare of our people through their osteopathic physician.

A. STUDENT LOAN FUND

The two loan funds are the American Osteopathic Student Loan Fund and the National Osteopathic Foundation. The American Osteopathic Student Loan Fund receives its monies through the sale of Christmas seals by the auxiliary to the American Osteopathic Association and the National Osteopathic Foundation receives contributions through interested patients and friends of the profession as well as osteopathic physicians themselves.

The Committee this past year approved thirty-nine loans with eighteen first loans and twenty-one second loans. Total loans granted and in effect are:

AOA Student Loan Fund—1st Loans, 42; 2nd Loans, 4; Total Number, 46; Total Amount, $33,875.

NOF Student Loan Fund—1st Loans, 59; 2nd Loans, 27; Total Number, 86; Total Amount, $64,000.

Totals—1st Loans, 101; 2nd Loans, 31; Total Number, 132; Total Amount, $97,875.

Total cash disbursement of the combined student loan funds from their institution in 1931 to May 31, 1965 has been $1,059,803.00 to a total of 1,301 student recipients.

Consideration has been given to increase the maximum loan from $750.00 to $1000.00 due to the increased tuition rates of the various osteopathic colleges.

B. COMMITTEE ON COLLEGES

All five colleges have been approved for training for osteopathic physicians for the ensuing year. Several osteopathic colleges have been visited during the past year not only by members of this Committee and their consultants but also by various State Boards.

A formal survey is to be conducted of the Des Moines College on October 4-6, 1965. A Pre-survey Committee of this College has been active in preparing the College for the inspection.

Kansas City College of Osteopathy and Surgery was visited by this Committee informally in April 1965 with various recommendations, resulting from this visit, having been transmitted to the administration of the College and to the Board of Trustees.

The Chairman of the Committee on Colleges, as a member of the Minnesota Medical Board, has visited all osteopathic colleges. As of this report, the Minnesota Medical Board has approved three osteopathic colleges and action is due soon on the other colleges.

State Board members from Nebraska, Minnesota and the Ontario College of Physicians and Surgeons have officially visited osteopathic colleges. Certain evidence has revealed that some Boards had pre-determined their actions prior to their visits.

The Committee on Colleges met in April 1965 with a group of physicians from Illinois headed by William J. Mauer, D.O., President of the Illinois Osteopathic Association, Inc. for discussion of standardization of the teaching of Osteopathic Principles and Techniques in osteopathic colleges. The discussion stemmed from a survey of the teaching of Osteopathic Principles and Technique as directed by the House of Delegates to the Committee on Colleges made in 1963 and continued during 1964. The Illinois Committee suggested uniform curriculum, standard text books in Principles and Technique, teaching seminars for faculty personnel in the teaching of these Principles and Technique, as well as integration of Osteopathic Principles throughout the entire curriculum and clinical areas and standard testing procedures throughout college years. The fundamental concern of the professional and accrediting agencies is the difference of treatment in osteopathic hospitals as compared to allopathic management. This compari-

son will continue to be extremely important in determining the destiny of the osteopathic profession.

A subsequent resolution was submitted to the House of Delegates by the Illinois Osteopathic Association which set up minimal standards for teaching the osteopathic concept. This resolution was referred to the Reference Committee on Professional Affairs headed by Max T. Gutensohn, D.O. The recommendation from the Committee was that the Bureau of Professional Education review standards for teaching the osteopathic concept with regard to philosophy, principles, technique and clinical demonstration, such concepts to be integrated into the teaching of all medical subjects. Also that evidence of such education shall be determined by examination by the National Board of Examiners for the Osteopathic Physicians and Surgeons. The recommendation from the Committee was passed by the House of Delegates.

Resolutions were submitted separately by the Ohio Osteopathic Association of Physicians and Surgeons and the Michigan Association of Osteopathic Physicians and Surgeons for the requirement of internship for issuance of the Doctor of Osteopathy degree. This resolution was also referred to the Reference Committees for Hospitals, Public Affairs and interested members from the House of Delegates for further study. The resolution was studied thoroughly and recommended that a study of the feasibility of requiring osteopathic college students to complete a one year internship at an approved osteopathic hospital prior to issuance of the D.O. degree, and that the report of this study be given to the Board of Trustees of the American Osteopathic Association at its meeting in September, 1965 with the recommendation that a special meeting of the House of Delegates be called if deemed necessary. The revised resolution passed by the Reference Committee was adopted by the House of Delegates.

The Bureau of Professional Education is continuing to meet and inform the National Commission on Accrediting as to the progress of the profession and its educational program. An official application had been submitted to the National Commission on Accrediting from the American Osteopathic Association to be approved as an accrediting agency. The Commission had not taken action on the application because

"————inasmuch as the future direction of the osteopathic education and the profession is not clear, the National Commission on Accrediting is taking no action at this time on the official request from the American Osteopathic Association for recognition."

C. COMMITTEE ON HOSPITALS

Many meetings of this Committee during the past year dealing with the numerous facets of improving and upgrading all osteopathic hospital facil-

ities, postgraduate intern and residence training and improvement of patient care through utilization of the osteopathic theory and concept were held.

Discussions were held on recommendations submitted by the special committee to study intern training programs. These refinements should provide an intern with a maximum educational experience presently available in osteopathic hospitals.

A "code book" outlining requirements for accreditations of skilled long-term health care facilities has been established.

A functioning utilization committee has been set up in all approved intern and/or resident training hospitals as well as registered hospitals so as to comply with a bill presently before Congress for those hospitals that will participate in the federal Medicare Program.

Disaster Medical Care program was discussed. A work sheet will be developed for hospital inspectors to use in determining whether a paper program has been developed in approved and registered hospitals and will determine if hospitals devote time for education in the care of multiple casualties.

Numerous revisions of the rules and regulations as related to different types of osteopathic hospitals was made. The Committee recommended that there be compiled under one cover so as to provide a comprehensive and clear concept as to the quality of care and training required in osteopathic hospitals. This manual may afford more recognition by federal agencies as well as insurance companies.

The Committee on Hospitals submitted to the Board of Trustees and the House of Delegates six (6) resolutions. These were studied by the Reference Committee and approval was given to resolution one through five. The sixth, which set up minimal standard autopsy rate of twenty-five per cent for intern and/or resident training hospital, was disapproved by the Committee as well as the House of Delegates. The five resolutions passed are as follows:

1) RESOLVED, that the minimum bed capacity of hospitals approved for the training of interns shall be one hundred, effective July 1, 1968. (This shall not apply to hospitals now approved or ones that have applied for intern training.)

2) RESOLVED, that the intern quota in a given hospital shall be established on the basis of one (1) intern per sixteen (16) patients, excluding newborns, and that this quota be devised on the basis of the average daily census of the annual application statistics submitted the year preceding the application, effective July 1, 1966.

3) RESOLVED, that hospitals unable to meet the requirements for intern approval but which provide a desirable training experience may be approved and a technique for rotating internships from other approved osteo-

pathic intern training hospitals may be devised.

4) RESOLVED, that hospitals approved for rotating internships shall be required to have fifty deliveries per intern per annum, and be it further RESOLVED, that approval shall be granted for rotating interns in a hospital that does not have sufficient obstetrical volume, if affiliation is made with other institutions to provide this training upon prior approval by the Committee on Hospitals.

5) RESOLVED, that all teaching hospitals approved by the A.O.A. shall have a Director of Education on a full-time or part-time basis, effective July 1, 1966.

The Missouri Association of Osteopathic Physician and Surgeons submitted a resolution for reaffirmation of policy of remaining a distinct and separate school of medicine. The intent was wholeheartedly approved, but the wording was discussed and referred to the Professional Affairs Committee for revision and clarification. This Committee presented the following resolution which was passed by the House of Delegates.

D. REAFFIRMATION OF POLICY OF REMAINING A DISTINCT AND SEPARATE SCHOOL OF MEDICINE

The Reference Committee is in accord with the thought expressed in Res. 22, that we remain as a separate and distinct school of medicine. We would reaffirm our position as expressed in the Administrative Guide, Item I, paragraph 2, commonly known as the Michigan resolution, which reads:

"2. WHEREAS, the osteopathic school of medicine is a complete and major school of medicine, serving the American public for more than sixty years; and

WHEREAS, the osteopathic school of medicine has attained its present status on the basis of merit and acceptance by the American public; and

WHEREAS, the osteopathic school of medicine and the osteopathic profession have developed a satisfactory liaison with national, state and local governments; and

WHEREAS, the osteopathic school of medicine and the osteopathic profession have developed a system of medical education recognized by accrediting agencies and by institutions of higher learning; and

WHEREAS, the osteopathic school of medicine and the osteopathic profession have supplied an enviable system of hospitals and professional care for the public; and

WHEREAS, the osteopathic school of medicine and the osteopathic profession have taken their place in official public health services; and

WHEREAS, the first responsibility of the physician is to serve the public and not a professional organization; and

WHEREAS, the public is best served by the free choice of physician without interference from professional organizations; and

WHEREAS, the public is entitled to service from the physician of his choice in all institutions supported morally and financially by the public; and

WHEREAS, the best interests of the health and welfare of the public and of the nation are best served by the continuance of a separate and a complete school of osteopathic medicine;

BE IT THEREFORE RESOLVED, that the osteopathic school of medicine in the interest of providing the best possible health care to the public shall maintain its status as a separate and complete school of medicine, cooperating with all other agencies and groups that sincerely promote the same objectives when that cooperation is on an equal basis, granting full recognition to the autonomy and contribution of the osteopathic school of medicine. (House 7-59-pp. 69-71)"

Openings for Osteopathic Physicians

(For information write to Dr. D. D. Beyer, Chairman, Physicians Relocation Committee, 1800 Vaughn Blvd., Fort Worth, Texas)

If you have information on openings, please contact Dr. D. D. Beyer, 1800 Vaughn Blvd., Fort Worth, Texas.

The following location sent in by Jim Smothers, Mgr. Chamber of Commerce, Cisco, Texas.

Cisco is in dire need of an Osteopathic physician for permanent location. Sites and facilities are available. It would be most advantageous to a doctor and to the city to locate here. Contact Jim Smothers, Mgr. Chamber of Commerce, Cisco, Texas.

* * *

Ideal practice location. Doctor recently deceased in Midlothian, Texas, 30 miles from Fort Worth in expanding industrial and agricultural area. Contact Chairman, Statistics & Locations Committee, State Office; or Dan D. Beyer, D.O.

* * *

The following information was sent to Dr. Beyer by Mr. Gid Bryan of Sherman, Texas. There is a group of six businessmen in Sherman who want to build a clinic-hospital combination according to doctors' specifications for two or three D.O.s.

There is definitely a shortage of hospital beds and physicians.

Contact Gid Bryan, Dixie Drug Store, 220 N. Travis, Sherman, Texas.

* * *

Doctor in large Texas city leaving due to poor health. Has nice eight room clinic that can be leased or purchased with or without equipment. Nine year established general practice. Contact State Office.

* * *

Sent in by George M. Lowe of Idalou: Our present doctor is moving his office to Lubbock as of Sept. 1. We feel that Idalou, which is located ten miles east of Lubbock, offers an excellent opportunity for any physician desiring to locate in West Texas. Contact Mr. George Lowe, Western Drug Company, Idalou, Texas.

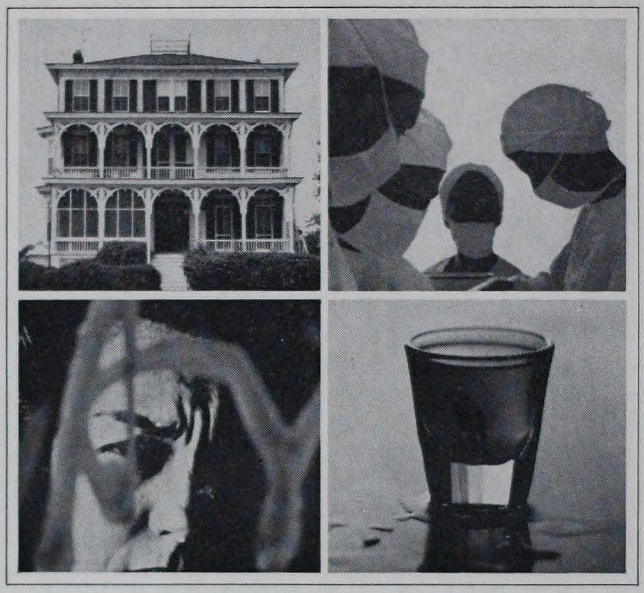
Unique Product Available for Use In Texas Hospitals and Nursing Homes

Schepps Dairy of Dallas and Houston has introduced a new individual creamer for use in hotels, motels, restaurants, hospitals and nursing homes, Harmon Schepps, President of the Dairy, has announced. Schepps Dairy is the first in Dallas and Houston to use this equipment in its own plants.

Called the Schepps CREAM-PAK, the creamer contains "Half and Half" which is now commonly used for coffee. The creamers are made from specially coated paper stock. An antibacterial Unitherm permits the use of ultra high temperatures in processing. The final packaging is done under aseptic conditions, providing a sterile product.

The Schepps CREAM-PAK creamers replace paper cups, pitchers, jars, dispensers and other conventional cream or half and half containers.

Under actual tests, Mr. Schepps reported, Half and Half stays fresher longer in the throw-away creamers than it does in other containers. They also save considerable time in serving.



Valuable in a wide variety of clinical uses

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Contraindications: Comatose states or in the presence of excessive amounts of C.N.S. depressants. *Principal side effects:* The most frequently encountered side effect is transitory drowsiness. Other occasional side effects include: dry mouth, nasal congestion, constipation, miosis, dermatological reactions, photosensitivity, jaundice, hypotension, increased appetite and weight; very rarely mydriasis, agranulocytosis, neuromuscular (extrapyramidal) symptoms.

Thorazine® *brand of chlorpromazine*

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Smith Kline & French Laboratories SK&F

Electrolyte, Water and Acid-Base Balance in Renal Failure

By JERRY HOUCHIN, D.O.

Normal Physiology: Consideration of electrolyte metabolism must include the function and maintenance of acid-base equilibrium. Not only is the defense of pH necessary for life, but many aspects of electrolyte balance are meaningful only when considered in relationship with the defense of acid-base balance. The normal pH of blood is approximately 7.4 at a 20|1 bicarbonate to carbonic acid ratio. As will be seen, the HCO_3 to H_2CO_3 ratio can change and pH remain at 7.4. This principally involves the hydrogen ion exchange mechanisms which are quite flexible. For example, HPO_4 and HSO_4 have the ability to give or to receive hydrogen ions and thus may act as an acid or base. The ability to defend against the addition or removal of hydrogen ions from the body is called buffering.

The buffers of the body are the most sensitive and are the first line of defense against changes in pH. The principle of this system involves the reaction of a weak acid and its salt with a strong acid forming a neutral salt and a weak acid. The disassociation constant of a weak acid is less than that of a strong acid, thus there is less tendency to lose hydrogen. This results in less hydrogen ions in the body fluids and may be exemplified as follows:

HCl and $NaHCO_3$ — $NaCl$ and H_2CO_3

Strong Acid	Buffer Salt	Neutral Salt	Weak Acid

There are four buffer systems in the body: (1) bicarbonate-carbonic acid ratio; (2) protein; (3) phosphate; and (4) hemoglobin.

Bicarbonate-Carbonic Acid Ratios: The organic and inorganic acids formed by normal body metabolism are classified as strong acids because they are stronger than carbonic acid. Bicarbonate appears to be the most active ion in neutralizing these acids, the reason being that this ion is more abundant and has the unique property of forming a volatile acid. In this reaction foreign acids are converted into a neutral salt and carbon dioxide which is expelled via the lungs.

The importance nature places on the bicarbonate system can be exemplified by the fact that almost all bases which enter the body—lactate, acetate, hydroxides, etc.,—are converted into sodium bicarbonate. This occurs through the formula $NaOH$ plus CO_2—$NaHCO_3$. Carbon dioxide is continually being produced by the body's metabolism and is always available for this reaction.

Phosphate and Protein Buffers: The phosphate buffer system is essentially the same as the bicarbonate system except in quantity. The proteins are weak acids with a number of negative valences owing to the different amino acids present. These can disassociate into hydrogen ions and acidic protein. Because of their quantity they exert a considerable buffering power to the plasma and tissue cells.

Hemoglobin: Hemoglobin concentration in RBC is very high in comparison to inorganic salts, thus is probably the strongest buffer of the blood. Its action briefly is as follows. Carbon dioxide is formed during cellular metabolism and diffuses into the tissue spaces and plasma. As the concentration in the plasma increases, it will diffuse into the RBC (osmosis). In the RBC, carbonic anhydrase converts this CO_2 into carbonic acid. The acid then disassociates into $H+$ and HCO_3-; the $H+$

reacts with Hb and HCO_3^- with K^+, forming HHb and $KHCO_3$. When the intracellular bicarbonate increases above the extracellular concentration, the HCO_3 will diffuse out of the cells, and chloride will diffuse in replacing the bicarbonate. This KCl which is formed maintains the electroneutrality of the RBC in the alveolar capillaries. The reduced hemoglobin is oxygenated and becomes $HHbO_2$ which then reacts with the bicarbonate salt to form H_2CO_3 plus $KHbO_2$. The carbonic acid dissociates into H_2O plus CO_2 and is eliminated via the lungs.

Respiratory Regulation of pH: The carbonic acid-bicarbonate system is well adapted to maintenance of pH. There is always a supply of carbon dioxide to form carbonic acid, and the rate of carbon dioxide excretion can readily be controlled by the lungs. This pulmonary mechanism is the body's second line of defense against pH change. The reaction is slower than the buffers, but just as efficient.

The chemical and physiological properties of a gas depends on the pressure it exerts. This pressure is called partial pressure and is represented by the symbol "p." The partial pressure of a gas depends upon the temperature and the number of mols in a given volume and is completely independent of other gases in the same volume.

The respiratory centers are sensitive to partial pressure of carbon dioxide, oxygen and the pH of blood. The centers are located in the medulla, aortic arch and carotid sinus, and control the rate and depth of respiration. Carbon dioxide lack or excess is the most important stimulus of respiration. However, if carbon dioxide accumulates to an excess, it may act as a depressant and can result in carbon dioxide narcosis.

Oxygen under normal circumstances does not act as a respiratory stimulus, but it may stimulate respiration if anoxemia is present. The net effect is anoxia of the respiratory centers causing hyperventilation. In patients with emphysema of long-standing, carbon dioxide accumulates in the blood in such high concentrations as to become a depressant and anoxia becomes the main stimulus for respiration. If a patient with emphysema or cor pulmonale is given excessive oxygen to breath, the stimulus of anoxia is abolished and causes the respiratory center to stop functioning. As a result excessive carbon dioxide accumulates in the body creating respiratory acidosis and the patient becomes comatose and dies. This process is very deceptive because the patient who was cyanotic with dypsnea becomes pink and begins to breathe slower and with less effort which leads the physician into the false sense of security that the patient is getting better when in fact he is more critical.

When the pH of blood falls to 7.2, hyperventilation and/or Kussmaul-type breathing may occur. When the pH falls below 7.0, the hyperventilation and Kussmaul breathing may disappear. Thus patients in severe acidosis are not always hyperventilating.

The rate and depth of respiration stimulated by the above factors help to regulate acid-base balance in the following manner: as the concentration of carbonic acid in the blood increases, it will cause an increase in pCO_2 in the alveoli, stimulating hyperventilation. This hyperventilation will cause carbon dioxide to be expired faster and in greater abundance, thus lowering the pCO_2 in the alveoli and carbonic acid in the blood. In other words, carbon dioxide elimination is increased producing less CO_2 available for the formation of H_2CO_3 and the net effect is alkalinization of the body.

This mechanism can be seen in patients with the hyperventilation syndrome. When the patient hyperventilates, the pH increases toward the alkaline side, and may cause a disruption

of calcium metabolism, i.e., calcium is removed from bone in an acid solution and deposited in an alkaline state. Hyperventilation may cause enough change in pH to precipitate a great deal of calcium creating hypocalcemia and tetany.

Bicarbonate concentration changes can also be regulated by respiratory mechanisms. For example, if a patient is given large amounts of sodium bicarbonate or has lost a great deal of acid from the body, the respiratory centers will respond by decreasing depth and rate of respiration. This causes the lung volume to decrease which in turn increases the carbon dioxide concentration and the pCO_2 in the alveolar air. The pCO_2 in the aveoli causes a "back pressure" holding the carbon dioxide in the blood resulting in an increased carbon dioxide concentration which will combine with hydrogen to form carbonic acid, thus increasing the acidity of body fluids.

It should be stressed that the buffer and respiratory compensations are essentially temporary and may not be able to restore normal pH completely. The kidneys, however, are slower to react, but are able to make permanent adjustments.

The normal products of metabolism are acid for which the kidney compensates by: (1) excreting acid; (2) reabsorption of bicarbonate; (3) phosphate exchange system; and (4) secretion of ammonium. The bicarbonate and phosphate systems are enough alike that only the bicarbonate exchange system will be discussed.

Hydrogen ion exchange mechanisms function to exchange hydrogen for sodium which produces the excretion of an acid radical with reabsorption of a standard base ion. Hydrogen ions are made available for this exchange by the conversion of carbon dioxide and water to carbonic acid by the action of carbon anhydrase. The carbonic acid then ionizes into H and HCO_3-ions. When sodium bicarbonate enters the tubules, this hydrogen ion is excreted and replaces the sodium, thus forming carbonic acid which is excreted as such or broken down further to form carbon dioxide and water. When the bicarbonate ion is very low in the blood, this CO_2 will be reabsorbed and upon entering the renal tubules, carbonic anhydrase will stimulate reformation of carbonic acid which disassociates into H HCO_3^-, and the process begins again.

The potassium ion also enters into this mechanism. It is well established that in alkalosis potassium is lost from the body because it is exchanged for hydrogen which is retained. This forms KCl and $KHCO_3$ which are then excreted.

This potassium loss syndrome will occur when there is any change in pH toward the alkaline side. An example would be in a patient with metabolic acidosis and a pH of 7.2. If the pH increases to 7.3, potassium will be found in greater quantities in the urine. The hydrogen ion will be retained (selectively) forming a protective mechanism to prevent rebound of an acidotic state into one of alkalosis.

Ammonia Formation: Ammonia is formed in the renal tubules by the breakdown of amino acids, especially glutamine. The ammonia is converted into ammonium by the addition of a hydrogen ion and is excreted as ammonium chloride. Ammonium is also converted into urea by the liver and eliminated. When these reactions occur, the result is loss of hydrogen ions from the body.

Metabolic acidosis develops because of an increased amount of acid or a decreased amount of base. In a patient with renal metabolic acidosis, the basic defect is the kidney's failure to excrete acid which may become compensated and the patient fair well, or may stay decompensated and cause death. When this acidosis occurs, the bicar-

bonate-carbonic acid ratio falls. If compensation takes place, carbonic acid is excreted by the lungs and bicarbonate is retained by the kidneys resulting in a tendency of the bicarbonate-carbonic acid ratio to rise. The pH will also increase even though the concentration of these two substances is less than normal. An example would be normal bicarbonate-carbonic acid ratio 20/1, partially compensated acidosis 17/.9, uncompensated 12/.9. This concept of compensated and uncompensated acidosis can cause great confusion in diagnosing and treating this condition especially if CO_2 combining power and CO_2 content are used as guides.

These tests measure the carbon dioxide concentration of plasma or serum which has been equilibrated to 40 mm. of pCO_2, which is the normal partial pressure of alveolar air.

The chief failing of CO_2 combining power are (1) carbon dioxide combining power is measured on serum rather than true plasma; and (2) it only demonstrates metabolic rather than metabolic plus respiratory change. Respiratory acidosis or compensation cannot be determined by this method. It also can be inaccurate because the equilibration is made at room temperature, not body temperature, and the technician's alveolar air may not be 40 mm. partial pressure. Because of these facts it has been suggested carbon dioxide combining power be abandoned.

The CO_2 content is generally accepted to be the better of the two tests because the blood pH can be calculated from it and is performed on true plasma. However, neither test alone can show respiratory effect and are being replaced by the pH, pCO2, and total bicarbonate determinations.

There are relationships between CO_2 content and CO_2 combining power which can aid in the diagnosis of respiratory and metabolic components: (1) when CO_2 content is higher than CO_2 combining power, respiratory acidosis is thought to be present because carbon dioxide is being retained, the reverse being respiratory alkalosis with carbon dioxide loss; (2) when CO_2 content and CO_2 combining power are equal but low, evidence of metabolic acidosis without respiratory interference (uncompensated acidosis) is indicated, and visa versa. This method may be used, but as cited above may be inaccurate.

The most accurate forms of determining the acid-base status of a patient are blood, pCO_2, pH and total bicarbonate. These tests can be performed on venous, arterial and capillary blood. The difference in venous and arterial blood determinations in our laboratory averages .03 mEq. The total bicarbonate is also helpful in determining the amount of base which should be administered to increase the pH to normal. If these determinations are used, the true state of the patient's acid-base and

compensating mechanisms can be followed very accurately.

If a patient's progress is being checked by the CO_2 combining power or content, confusion may arise particularly if alkaline solutions are being given to correct the acidosis. The reason for this is that in metabolic acidosis the CO_2 content and CO_2 combining power are low, and thus initiate the stimulus for hyperventilation. With the administration of alkali, the pH and CO_2 values increase which should cause hyperventilation to cease. However, hyperventilation frequently persists and will result in a rise in pH and a fall in CO_2. The CO_2 combining power will remain low indicating an acidosis when in fact the patient is now alkalotic. If the CO_2 combining power is used as a gauge, the physician may be prompted to give more alkali causing fatal alkalosis.

The pCO_2 and pH may be helpful in determining the state of the patient's metabolic compensation. This can be illustrated as follows. If the pCO_2 and pH determinations were used in the example above, the progress could be followed more accurately because the administration of an alkali would cause the pH to rise as well as the pCO_2. If hyperventilation continued, the pCO_2 would fall, but the pH would be normal, thus indicating enough alkali had been given.

In uncompensated respiratory acidosis the pH will be low and pCO_2 high because the lungs are not removing the excess carbon dioxide. In uncompensated metabolic acidosis the pH is low and pCO_2 normal because the lungs are functioning normally and have not or cannot be stimulated to remove more carbon dioxide. When respiratory acidosis is compensated, the pH becomes normal and pCO_2 is unchanged. In compensated metabolic acidosis a respiratory alkalosis occurs, the pH returns to normal and the pCO_2 low. The reverse is true of metabolic alkalosis.

Potassium: The potassium ion serves many functions in the body. It is the main ion for all the cellular functions including the electrical phenomena and cellular pH. Laboratory methods for determining serum potassium are very inadequate because potassium is an intracellular ion and the total body content cannot be measured. Hence, serum potassium levels can be misleading. If potassium shifts into the cells as in alkalosis, this would cause a low serum potassium when in fact total body potassium may be normal or high.

The clinical manifestations of hyper- or hypokalemia may also be misleading. Sodium and calcium are antagonistic to the physiologic effects of potassium thus creating an unpredictability of the clinical manifestations when serum potassium is used as a guide. Examples of this would be if serum potassium is low and serum sodium and/or calcium are also low, symptoms are less likely to occur; if in the above the serum

sodium or calcium were high, clinical manifestations would be more likely to occur. This same antagonism has its effect on the renal tubules. When sodium is high in the serum, potassium will be excreted at a greater rate, and visa versa.

In renal malfunction potassium concentrations can be hyper or hypo depending on the stage of the disease. Hypokalemia may occur in the diuretic phase of renal failure in the following ways: (1) nausea, vomiting and diarrhea occur more frequently in this stage; (2) in many cases the pH increases toward alkalinity which drives the potassium into the cells; (3) the alkalinity also causes the conservation of H^+ in the renal tubules with the excretion of potassium; (4) the increased urinary output carries salt and potassium with it; and (5) this ion cannot be reabsorbed by the injured tubules. The diagnosis of this condition is made difficult because of the inaccurate serum findings. If a patient is found to be in alkalosis with normal or low serum potassium, the physician can be justified in administering potassium. However, it should be remembered that acidosis causes a high serum potassium, regardless of total body content, and a normal or low serum potassium concentration in such a patient indicates severe potassium loss. The physician's high index of suspicion and the EKG many times are the only method of solving the problem of hypokalemia. The EKG findings begin with a lowering and broadening of the T wave, and with Q-T prolongation and the appearance of U waves. Later in the process the T waves become inverted, S-T becomes depressed and RS-T segments have a sagging appearance.

Hyperpotassemia is probably the most important aspect of renal failure because it is the leading cause of death. There may be many reasons for hyperpotassemia in the uremic patient, the most important being tubular degeneration and acidosis. Whenever acidosis is present, the potassium levels will increase which is due to hydrogen and potassium on exchange in the tubules and the shift of potassium into the extracellular fluids. Potassium will also become elevated because of cellular breakdown and negative nitrogen balance. Although in comparison this is minor, it must be taken into account, and if the patient is eating, potassium will enter the body by this avenue, thus the importance of the diet given to patients with renal failure should be stressed. A great deal of potassium may also enter the body if bank blood is given to correct the anemia which is usually present.

Hyperkalemia like hypokalemia is best diagnosed by the EKG. When serum potassium levels reach 7 milli-equivalents, EKG changes begin to occur. The changes in the EKG consist of tall, peaked T waves when potassium concetrations are at 7 mEq.; at 8 mEq. P waves may disappear or be found in abnormal places on the tracing. When serum potassium reaches 10 mEq., the QRS becomes wide and aberrant. Potassium elevation to 11 or 12 mEq. reveals biphasic deflections caused by the QRST complexes becoming fused. Ventricular fibrillation, cardiac arrest and death may occur at any elevation above 7 mEq.

Sodium may be lost in great quantities in the polyuric phase of renal failure and is due to the inability of the injured tubules to retain this ion. It may also be lost through vomiting, diarrhea, sweating and sequestration into tissue spaces or abdomen.

The state of over-hydration is probably the most common cause of hyponatremia in the oliguric patient and is brought about by the physician's administration of excess water and/or the kidney's inability to excrete fluid. The differentiation of this state from true sodium loss may be made in several ways. First, there is a negative history of extrarenal or renal loss of sodium.

Secondly, the patient does not have signs or symptoms of sodium loss. Thirdly, the hematocrit decreases rather than increases as it would in sodium and water loss, and if overhydration is present, the patient will show signs of water intoxication, etc.

Cellular uptake of sodium is another cause of decreased serum sodium concentrations and is a confusing mechanism because it has been shown that sodium may shift out of the cells in response to acidosis. The answer to this appears to be in the fact that a reservoir exists in the body and the sodium is deposited there.

Sodium balance is a more difficult problem in the patient with chronic renal failure because: (1) the patient in chronic renal failure is eating, thus taking salt, whereas the patient in acute renal failure usually cannot eat, thus exogenous salt intake is nil; (2) the salt intake is more difficult to control on an outpatient basis; (3) all uremic patients are intolerant of strict sodium restriction; and (4) patients show an intolerance of large amounts of sodium administration.

In summary, the patient in renal failure with hyponatremia may indicate overhydration, extrarenal loss, renal loss on a pathological or pharmacological basis, and internal sodium shifts. It should be remembered that sodium loss is characteristic of the diuretic phase and can be aggravated by excessive and/or prolonged water administration.

Chloride: The changes in sodium balance which characterize renal failure are reflected in body chlorides. This ion is considered indifferent and is believed to diffuse passively in response to sodium transport. If chloride loss is not associated with water depletion, it has very little effect on body function because this ion can be replaced by sulfates and nitrates which may function as chlorides. This is probably why symptoms frequently do not occur until concentrations are far below those seen clinically. Therefore, low serum chlorides seen in uremia should be viewed with understanding, not therapeutic aggressiveness. It is better to view the hypochloremia in the light of sodium and water metabolism and not as if it were an isolated finding.

Hypermagnesemia and hypomagnesemia may occur in renal failure and is an often overlooked entity which may cause death. Hershfelder and others have stated that many cases of uremic coma are in actuality due to magnesium. They have shown that coma may occur with serum magnesium levels of 10 mg. percent and ventricular fibrillation or "stand-still" may occur at lower levels. The electrocardiogram is the main stay in diagnosis of this condition, but the changes mimic those seen in hyperkalemia and may cause confusion.

Hypomagnesemia is frequently seen especially if portal cirrhosis, hepatic congestion, chronic alcoholism, gastric suction, vomiting or infusion of magnesium-free fluids complicate the picture. Hypomagnesemia is frequently the cause of the muscular twitching, rhythmatic tremors and psychotic symptoms which occur and can be reversed by the administration of magnesium salts. However, magnesium should not be given to a patient in acute or chronic renal failure unless there are signs of hypomagnesemia or an adequate renal output.

The major factors which regulate calcium and phosphorus metabolism are: (1) presence or absence of vitamin D; (2) the parathyroid hormone; (3) serum concentrations of calcium and phosphate ions; and (4) the ability of the kidney to excrete or retain calcium and phosphate. An increase in phosphorus will cause reciprocal changes in the serum calcium and occurs through the phosphate, parathyroid and calcium axis which in turn regulates the serum concentration of these ions. The high serum phosphate stimulates parathyroid hormone secretion causing the renal

tubules to excrete more phosphate. In renal tubular damage, the tubules cannot respond to this stimulation, thus the serum phosphate increases and serum calcium decreases.

Other facts which enter into the production of hypocalcemia are low serum proteins, acidosis and citrate binding. Thirty to forty percent of the body calcium is bound to serum proteins and consequently when proteins are low, total body calcium is low. When acidosis is present, calcium is used as a standard base radical to bind many of the acids present. If citrate is given in the form of citrated blood, a great deal of calcium may be bound in a calcium-citrate complex, thus removing the ion from the plasma.

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Never Too Late

Editorial from the FORT WORTH PRESS, Fort Worth, Texas
By WALTER R. HUMPHREY

Yesterday was Doctor's Day and I should have recognized it.

So, I'll do it today, because any day is doctor's day when your doctor means so much in your life as he does in mine.

Nowadays, in this time of specializing, we are inclined to have several doctors, not just one.

And we become attached to all of them . . . the surgeon who came in for an emergency; the eye, ear, nose and throat specialist who took care of all those problems of childhood; the skin specialist; the X-ray man with his amazing pictures; the plastic surgeon with his miracles . . . and all the rest.

But the family doctor is the man most of us think about. He's the man who has brought us through all sorts of illnesses, has inoculated us, prescribed for the bugs which attacked us.

He has been more than our doctor. He has been our counsellor and friend.

He has an office full of records on us and our children. He has our "history" in his cabinet.

He is alert to special danger signals and his warnings save us from having to go into the hospital for something serious or get us there in time when we need to be there.

The family doctor is a major part of our life and we cannot do without him.

He comes to us when we're in trouble, he's always at the other end of the telephone when we need reassurance, and he takes time for a visit when we're worried.

He's a wonderful guy to have around. And ours is one of millions of families which could not have gotten along without him.

I suppose our doctor didn't observe yesterday as Doctors Day.

He didn't take the day off to celebrate. He probably didn't even know it was his day.

So, one day is as good as another to say, "Thank you, Doc. We appreciate you. And good health to YOU."

Why not do it?

NOTICE OF EXAMINATIONS

The next meeting of the Texas State Board of Medical Examiners when examinations will be given and reciprocity applications considered is scheduled for December 6, 7, 8, 1965, at the Blackstone Hotel, Fort Worth, Texas.

Completed examination applications for graduates from United States medical schools must be filed with this office thirty days prior to the meeting date.

Completed examination applications for graduates of foreign medical schools must be filed sixty days prior to the meeting date.

Completed reciprocity applications must be filed sixty days prior to the meeting date to be given consideration.

* * *

Next examination in the Basic Sciences will be Oct. 11-12, 1965 in Austin.

Details may be obtained from the Executive Secretary, 1012 Sam Houston State Office Bldg., Austin.

Applications for Oct. examinations must be complete and in this office by Sept. 13 and all necessary information and documents must be in the applicant's file by that date. Those interested in participating in this examination should act immediately.

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NEWS OF THE DISTRICTS

District No. One

Last month a large number of our members were here and there attending meetings and conventions, however, this month is apparently the month for vacations. Among the travelers are, or have been, Dr. Glenn and Katherine Scott who visited friends and relatives in Kansas; Dr. Glenn Robinson and family are sojourning in cool Colorado; Dr. Ed and Louise Mayer are in the beautiful tropical isle of Hawaii; Dr. Lester and Ruby Vick are on a trip to the Holy Land.

One more exciting trip concerns the B. E. Cobb family whose son Ricky won the soapbox derby held here a few weeks ago. Their next stop will be Akron, Ohio, where Ricky will be an entrant in the National Soapbox Derby.

We are happy to have our supervisor of nurses back with us after a trip to Ohio to be with her father who had a serious operation. All reports are that he is progressing satisfactorily.

I am sure that there is other news that should be included but I have not heard any more.

Happy vacations to everyone.

District No. Two

Dr. Dan D. Beyer of Fort Worth has been elected President-Elect of the Greater East Side Civic League. The League is devoted to fostering and developing civic enterprises.

Thomas T. McGrath, D.O., of Fort Worth was a faculty member at the Pediatric Seminar held in Kansas City recently. He stressed the difference between the pediatric patient and the adult in the matter of orthopedic care.

District No. Five

At a recent meeting, District V, TAOP&S, voted to contribute $50.00 to DOCARE International according to Ronald Owens, D.O., Secretary of the District.

Others interested in making such a fine gesture should contact Dr. Joseph M. Peterson, 124 Tenth St., N.W., Albuquerque, New Mexico, 87101.

Dr. Eby Accepts New Position

Dr. Richard Eby has accepted the post of Chairman of the Department of Obstetrics and Gynecology at Kirksville College of Osteopathy and Surgery.

Dr. Eby resigned as President of Kansas City College of Osteopathy and Surgery on May 31, 1965.

Calendar of Events

August 27-29 — Texas Osteopathic Radiological Society meeting, Corral of the Longhorn, Wimberly, Texas. Contact Edward J. Yurkon, D.O., Program Chairman, 7525 Scyene Rd., Dallas, Texas.

Sept. 20-23, 1965. — AMERICAN OSTEOPATHIC ASSOCIATION, 70th Annual Convention & Scientific Seminar, Sheraton and Warwick hotels, Philadelphia. Program Chairman, Dr. Felix D. Swope, 1028 Connecticut Ave., N. W., Washington, D.C. 20036.

Sept. 20-22. — AMERICAN OSTEOPATHIC COLLEGE OF DERMATOLOGY, annual meeting, Philadelphia. Secretary-Treasurer, Dr. Daniel Koprince, 713 N. Main St., Royal Oak, Mich. 48067.

Sept. 20-22. — AMERICAN COLLEGE OF GENERAL PRACTITIONERS IN OSTEOPATHIC MEDICINE AND SURGERY, annual meeting, Philadelphia. Executive Secretary, Mr. Jack Hank, 13942 S. Clark, Riverdale, Ill. 60627.

Sept. 20-22. — AMERICAN COLLEGE OF OSTEOPATHIC PEDIATRICIANS, annual meeting, Philadelphia. Secretary-Treasurer, Dr. Mischa D. Grossman, 3084 Federal St., Camden, N.J. 08105.

Sept. 20-22. — OSTEOPATHIC COLLEGE OF OPHTHALMOLOGY AND OTORHINOLARYNGOLOGY, annual meeting, Philadelphia. Executive Secretary, Mrs. Arthur A. Martin, Box M, Kirksville, Mo. 63501.

Sept. 20-22. — AMERICAN OSTEOPATHIC ACADEMY OF SCLEROTHERAPY, annual meeting, Philadeplhia. Secretary-Treasurer, Dr. W. N. Hesse, 1913 S. Edgefield, Dallas, Texas 75224.

Sept. 20-23 — AUXILIARY TO THE AMERICAN OSTEOPATHIC ASSOCIATION, annual meeting, Philadelphia. Secretary, Mrs. E. G. Nigh, 705 S. Maple St., McPherson, Kans. 67460.

Sept. 20-23. — ACADEMY OF APPLIED OSTEOPATHY, annual meeting, Philadelphia. Secretary, Dr. Margaret W. Barnes, P.O. Bin 1050, Carmel, Calif.

Sept. 20-23. — AMERICAN COLLEGE OF NEUROPSYCHIATRISTS, annual meeting, Philadelphia. Secretary-Treasurer, Dr. Sydney M. Kanev, 101W. 55th St., New York 10019.

Sept. 20-23. — AMERICAN OSTEOPATHIC COLLEGE OF PATHOLOGISTS, annual meeting, Philadelphia. Secretary-Treasurer, Dr. George E. Himes, Flint Osteopathic Hospital, 3921 Beecher Road, Flint, Mich. 48504.

Sept. 20-23. — AMERICAN OSTEOPATHIC COLLEGE OF PROCTOLOGY, annual meeting, Philadelphia. Secretary-Treasurer, Dr. Earle F. Waters, 24 M. St., Salt Lake City, Utah 84103.

Sept. 20-23. — AMERICAN OSTEOPATHIC COLLEGE OF PHYSICAL MEDICINE AND REHABILITATION, annual meeting Philadelphia. Secretary-Treasurer, Dr. Leon Adam Kowalski, 488 Green Lane, Roxborough, Philadelphia 19128.

Sept. 30-Oct. 2. — AMERICAN COLLEGE OF OSTEOPATHIC INTERNISTS, annual meeting, Philadelphia. Secretary-Treasurer, Dr. Stuart F. Harkness, 3820 Grand Ave., Des Moines, Iowa.

October 2-3 — TEXAS OSTEOPATHIC OBSTETRICAL AND GYNECOLOGICAL SOCIETY, Dallas, Texas.

Oct. 31-Nov. 4. — AMERICAN COLLEGE OF OSTEOPATHIC SURGEONS 38th ANNUAL CLINICAL ASSEMBLY, with American Osteopathic Hospital Association, American Osteopathic College of Anesthesiologists, American Osteopathic College of Radiology, American Osteopathic Academy of Orthopedics, and American College of Osteopathic Hospital Administrators. Shamrock Hilton Hotel, Houston, Texas. C. L. Ballinger, D.O., Convention Manager, P.O. Box 40, Coral Gables, Florida 33134.

March 5-10, 1966 — THE INTERNATIONAL ACADEMY OF PROCTOLOGY, Miami Beach, Florida.

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